

Abstract

The present invention relates to the diol intermediate of citalopram useful for treatment of depression, that is to say, the crystal of free alkali of 3-hydroxymethyl-4-[1-(4-fluorophenyl)-1-hydroxyl-4-(dimethylamino)] butylbenzonitrile and the method of crystallization thereof. The present invention has disclosed the method to prepare pure citalopram and its purified salts through crystallization of the described alkali; the optical resolution method of citalopram diol intermediate, the method to prepare S-citalopram and its purified salts by crystals mentioned above. The present invention has also disclosed the method to prepare citalopram and its purified salts, S-citalopram and its purified salts, as well as pharmaceutical formulation thereof obtained. Using methods of the present invention, the quality and yield of the product can be signally improved, and the production cost of the medicinal material can be decreased.